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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,975	07/09/2003	Fumiaki Miyahara	116468	8812
25944	7590	01/05/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER CHANG, JOSEPH	
			ART UNIT 2817	PAPER NUMBER

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/614,975

**Applicant(s)**

MIYAHARA ET AL.

**Examiner**

Joseph Chang

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 6-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 10, 11, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 5 and 12-14 is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/8/03, 4/14/04, 9/24/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION*****Election/Restrictions***

Applicant's election with traverse of Claims 1, 5, 10-16 drawn to species 2, Figures 4, 5A-5D, and 12A-12D in Response dated 11/1/04 is acknowledged. The traversal is on the ground(s) that "the subject matter of all species is sufficiently related that a thorough search for the subject matter of any one species would encompass a search for the subject matter of the remaining species. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden." This is not found persuasive because the non-obvious variants between each of the species present a burden in both search and examination. Species 1 (Figure 3) teaches an oscillation circuit with a potential stabilization circuit 50 having the combined resistance of the feedback resistor 24 and the resistor 52, Species 2 (Figure 4, 5, 12) teaches an oscillation circuit with a potential stabilization circuit 50 having bias resistors 60 and 62, Species 3 (Figures 6, 7) teaches an oscillation circuit with a potential stabilization circuit 50 having a feedback resistor 24 with bias resistors 60 and 62, Species 4 (Figure 8) teaches an oscillation circuit with a potential stabilization circuit 50 having a resistor 74 parallel to the DC-cutting capacitor 26. Each of these features is a non-obvious variant from the others; thus, present a burden in both search and examination. It is noted that an examiner determines a burden.

The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Oscillation circuit, electronic apparatus and timepiece using a potential stabilization circuit with resistive terminations.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 2362276 (cited by the applicants).

Regarding Claim 1, Nakamiya et al. discloses an oscillation circuit (Figures 6 and 7) having an oscillation source (Q) and a main circuit portion (C3M, C3P, Px, Nx, MP, MN, RP) connected by a signal path (nodes of Q, i.e. IN and OUT) to the oscillation source (Q) and driven by the oscillation source (Q), the main circuit portion (C3M, C3P, Px, Nx, MP, MN, RP) comprising: an inverter (MP, MN) connected to the oscillation source by the signal path (OUT); a feedback resistor (RI) connected between the output side (OUT) and the input side of the inverter (input of inverter symbol in Figure 6, see Page12, lines 31-32); an element (C3P, C3N) that galvanically separates (DC blocking) the signal path between an input terminal of the signal path (IN) and the input side of

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the inverter (PG); and a potential stabilization circuit (PX , NX and RP) that connects the input terminal side of the signal path (IN) to a circuit portion (PX and NX) with a stabilized potential through an element (RP) that functions as a resistor (resistor symbol).

Regarding Claim 10, the main circuit portion is formed as a semiconductor device (Page 14, lines 5-9) and the oscillation source (Q) is an oscillator with one end being connected to the input terminal (IN) of the signal path and the other end being connected to an output terminal (OUTPUT) of the signal path.

Regarding Claim 15, the preamble recitation "electronic apparatus" is mere statement of purpose or use. The prior art structure is capable of performing the intended use as recited in the preamble.

Regarding Claim 16, the preamble recitation "timepiece" is mere statement of purpose or use. The prior art structure is capable of performing the intended use as recited in the preamble.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2362276 in view of O'Shaughnessy et al.

As noted above in the Claims 1 rejection, GB 2362276 discloses an oscillation circuit as recited in the claim a resistor. However, GB 2362276 does not explicitly disclose the resistor is formed by using polysilicon.

As would have been well known in the art, for example, as disclosed in O'Shaughnessy et al., in an integrated circuit, it is advantageous to utilize a diffused resistor or on-chip polysilicon resistor because it has operating characteristics that do not vary with changes in temperature.

Accordingly, It would have been obvious to one of ordinary skill in the art at the time of the invention to use a polysilicon resistor as taught by O'Shaughnessy et al. in place of the generic resistor because such modification would have provided the benefit of operating characteristics that do not vary with changes in temperature.

#### ***Allowable Subject Matter***

Claims 5, 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the best prior art of record, GB 2362276 taken alone or in combination of other references, does not teach or fairly suggest a bias voltage to the input terminal side of the signal path, through the element that function as a resistor (Claim 5).

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

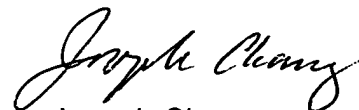
Ziegler et al. discloses electronic thermometer having an oscillator.

Jeong discloses an oscillator having a capacitor that matches both sides of amplifying means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Chang whose telephone number is 571 272-1759. The examiner can normally be reached on Mon-Fri 0700-1730.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571) 272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph Chang  
Patent Examiner  
Art Unit 2817